

ON PARASITIC HYMENOPTERA FROM THE SOLOMON ISLANDS, COLLECTED BY MR. W. W. FROGGATT, F.L.S.

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(Communicated by W. W. Froggatt.)

The Hymenoptera collected by Mr. Walter W. Froggatt, F.L.S., during his visit to the Solomon Islands, in July and August, 1909, number 17 (*Chalcididae* 2, *Braconidae* 6, *Evaniidae* 1, *Ichneumonidae* 8), all undescribed. Taking into consideration that the Parasitic Hymenoptera of these Islands are practically unknown, and that we know comparatively little about the Parasitic Hymenoptera of Papua, this fact is not to be wondered at.

As regards the geographical relationship of the species, *Chalcis*, *Bracon*, *Chelonus*, *Agathis*, *Eristicus*, *Mesostenus*, and *Henicospilus* are genera of general distribution over the globe. *Platybracon* is distributed over Malaya, and is found also in Australia. *Lissopimpla* is found in Ceylon and Australia. *Echthromorpha* is noted for its wide range over Oceanic Islands, but is also common in Hindu-Malaya. *Pegarthrum* is probably an Austro-Malay genus. *Megiselus* has an extensive range over Hindu-Malaya, and Austro-Malaya, being probably commoner in the islands than on the main lands.

CHALCIDIDÆ.

Chalcididinae.

CHALCIS SALOMONIS, sp.n.

♂. Black; covered with silvery pubescence, basal segments of abdomen bare, and more shining than apical; tegulæ, apex of the four front femora, their tibiæ and tarsi, except the tibiæ, broadly black behind, and the posterior

behind, except at the base: hind tarsi testaceous; femora with about ten teeth, the basal smaller, less clearly separated than the others, those below the middle larger; apex of scutellum broadly rounded. Metanotum strongly reticulated, areola thrice longer than wide, narrowed towards base and apex, keels uniting at base, separated at apex, the apical keel being transverse. Wings clear and hyaline, nervures black. Length, 4 mm.

Head in front opaque; face without an area, shagreened, a smooth line down middle of face. Frontal depression smooth, deep, roundly narrowed above. Mesonotum and scutellum umbellically punctate. On the top of the propleuræ is a large, shallow, rounded fovea, with a flat, smooth keel projecting from its middle behind: below are two or three weakly defined foveæ. There are four foveæ down the base of the mesopleuræ, the upper the longer, and with a smooth, flat, broad keel narrowed at the top above them: behind the middle is a shining aciculated area, commencing at the top, but not reaching to the bottom, wider above than below, the lower part with the apex rounded. Meta-pleuræ opaque, coarsely alutaceous, irregularly reticulated.

Clenonyminæ.

ARESSIDA, gen. nov.

Antennæ slender: flagellum of uniform thickness, placed immediately over mouth, a curved keel beneath them. Malar space nearly as long as eyes, which are large, and converge distinctly above. Antennal scape in grooves, which unite above, scape projecting over the grooves. Temples much narrowed above, becoming gradually widened below. Prothorax large, well-developed, widened towards apex, where it is as wide almost as the total length: keeled down middle. Parapsidal furrows obsolete, mesonotum slightly depressed in middle at apex. Scutellum large: base narrowed, transverse: sides obliquely narrowed: apex broad, rounded, slightly projecting, and with a crenulated furrowed margin.

Metanotum short in centre, sides larger, rounded legs of moderate length, hinder femora thicker than anterior, which are roundly incised at apex below: fore and hind coxæ more than twice longer than thick, the hinder the longer. Wings banded: basal vein long, about one-fourth longer than marginal, which is thickened at apex: stigmal vein short, curved, thickened at apex: postmarginal extending to apex, but becoming faint towards the end. Abdomen sessile, basal segment the larger, all the segments transverse at apex, becoming gradually narrowed: last segment produced into a stylus as long as the preceding three segments united: ovipositor projecting half its length beyond this.

Belongs to the *Alconymina*. It should be known by the anterior femora not being swollen, and by their being roundly incised at the apex: by the pronotum being keeled down the middle: by the transverse abdominal segments: and by the long, projecting ovipositor-like last segment. The form of the abdomen is pretty much as in the Malayan *Elembra* Cam., but that has the antennæ placed in the middle of the face: the collar is shorter, and not keeled. It is not unlike *Taoga*, Cam., from Borneo: but that has the eyes pilose, the pronotum not keeled, the third abdominal segment nearly as long as the basal two united, and the antennæ shorter and thicker.

ARESSIDA CARINICOLLIS, sp.n.

♀. Green: middle of pronotum narrowly along central keel, central lobe of mesonotum, scutellum and parts bordering it dark purple: a large semicircular mark on first abdominal segment, commencing behind middle, and the others except for triangular green marks on the outer sides, the mark on the third larger than on the others, and the ventral surface except for green lateral marks, bordered with golden, of a brighter purple colour: pleuræ with brassy tints, propleuræ largely tinged with them: a small smooth, triangular mark under tegulæ, a longer one on apex, extending

from top to bottom, and almost the upper half of metapleuræ smooth, fiery-red; as are also the greater part of the outer orbits, the malar space, and the apex of the clypeus. Antennæ black, tinged with dark purple, fifth and basal three-fourths of sixth joints white. Legs red, coxæ punctured, brassy-green like the body; hind tibiæ and apex of hind femora darker-coloured. Wings hyaline, nervures black, an oblique fuscous cloud running from end of costal nervure, and a larger triangular one running from the stigmal branch, becoming narrowed at the end, and uniting with the basal one, the hyaline space formed by their union being almost semicircular; an obscure, narrow smoky border on apex. Length, 12 mm.

Covered with a short white pile, very dense on sides of metanotum, less so on coxæ. Head and thorax closely punctured, very closely so on mesonotum and scutellum; pronotum nearly as long as wide at base, a distinct, smooth keel down the middle. Sheath of ovipositor projecting about one-half the length of the last segment, the latter forming a stylus.

BRACONIDÆ.

Braconinæ.

BRACON LEUCOSTIGMUS, sp.n.

♀. Red: antennæ, front, vertex, outer orbits to bottom of eyes, occiput, second and following segments of abdomen, and hind tibiæ and tarsi, black: wings fuscous-violaceous, stigma clear white; the greater part of first cubital cellule hyaline; third abscissa of radius a little longer than the basal two united; recurrent nervure received in the apex of first cubital cellule, clearly distinct from first transverse cubital nervure. Length, 5; terebra, 3 mm.

Face closely punctured, yellowish above middle, on the lower three-fourths raised into a conical area, the narrowed end above. Parapsidal furrows weakly indicated at base. Second abdominal segment without an area; the suturiform

articulation narrow, smooth; there are no oblique furrows, but there are indistinct transverse ones on the apices of the third and fourth. Temples obliquely roundly narrowed. Palpi testaceous.

PLATYBRACON INSULARIS, sp.n.

♀. Luteous: antennæ and tips of mandibles black; head and thorax smooth, a band of fine striæ down middle of metanotum, the band becoming wider towards apex; basal four abdominal segments closely striated, the striæ stronger on the basal two segments; apices of third and fourth narrowly smooth; second with a straight oblique furrow running from base near middle to near apex, the space between the two at the base raised and striated, of equal width and bordered by a transversely striated furrow: furrows on third shorter, reaching to middle, wider and roundly curved. Wings blackish-fuscous, more or less hyaline at base of stigma, which is pallid ochraceous, narrowly black at apex; second cubital cellule about thrice longer than wide; third abscissa of radius as long as the basal two united; recurrent nervure received about the length of the basal abscissa of radius in first cubital cellule from each apex. Length, 10; terebra, 7 mm.

Basal segment of abdomen regularly, somewhat strongly striated, the raised central part roundly narrowed at base, its apex a little narrower than sides at apex. Sheaths of ovipositor stout, black, pilose, almost as long as metanotum and abdomen united.

NEDINOSCHIZA, gen. nov.

Head large, cubital, temples one-half longer than the top of eyes, rounded behind; occiput transverse, not margined. Apex of clypeus with a short, semicircular incision, the sides of which form teeth. Abdomen with only one trans-

verse furrow, which is crenulated, and placed between second and third segments: there is a longish triangular area at base of second segment, bordered by an obliquely striated furrow: seventh segment almost one-fourth longer than sixth: hypopygium cultriform. Fore tarsi thrice longer than tibiae, basal two joints united longer than them.

Malar space two-thirds of length of eyes. Antennal scape about twice and one-half longer than wide at apex. Radial cellule long, extending to apex of wing: radius issuing from near base of stigma. Second cubital cellule about thrice longer than wide, of equal width. Metathoracic spiracles large, about thrice longer than wide. Third and fourth joints of antennæ equal in length. Antennæ projecting from tubercles, which are more prominent on the outer side.

The mouth-opening is not quite as it is with the *Cyclostomi*, the open space being formed by the two projecting teeth, it being also much more shallow and smaller; the head is larger, more cubital than it is in *Bracon*, as well as wider, compared with the thorax. It differs from *Bracon* and *Iphiaulax* in the radius issuing nearer the base of the stigma. The fore tarsi, too, are longer, being nearly as long as the rest of the legs united.

MEDINOSCHIZA CRATOCEPHALA, sp.n.

♀. Black: head, pro- and mesothorax, and the four front legs rugose, head tinged with yellow: wings fuscous-violaceous, stigma and nervures black, the usual hyaline clouds at base of cubitus: smooth and shining, second cubital cellule thrice longer than wide. Length, 14: terebra, 14 mm.

Apex of first abdominal segment striated: there is a distinct triangular area, smooth, longer than it is wide at the base, with a keel which reaches to the apex of the segment, and bordered by a wide, obliquely striated furrow: the suturiform articulation is narrow and crenulated: from it runs a less distinct furrow; these are the only furrows.

Cheloninae.**CHELONUS SALOMONIS, sp.n.**

♀. Black; anterior tibiae and the four front tarsi dark testaceous, covered closely with short white pile, longer on legs: wings hyaline to base of stigma, fuscous beyond, stigma and nervures black. Metanotum irregularly areolated. Keels stout, the central at the top of the apical slope ending in blunt tubercles: areola appendiculated at base, triangular, lateral area with some irregular striae. Middle lobe of mesonotum with a double row of foveae down the middle; apex with a longish central, and a shorter lateral area bordering it: sides of middle lobe finely punctured; lateral lobes reticulated, finely on the inner, coarsely and more distinctly on the outer. Pleurae reticulated, metapleurae more coarsely than meso- and the latter than the propleurae. Basal third of abdomen rather strongly longitudinally striated, with some finer transverse striae: the rest much more finely and closely, regularly striated, almost reticulated. On the sides of the vertex are some stout, oblique, clearly separated. Length, 5-6 mm.

Hormiini.**PEGARTHURUS FUSCIPENNIS, sp.n.**

♂. Luteous; antennae, mandibles, teeth, and apical joint of tarsi black; abdomen of a deeper, more rufous colour, middle segments infuscated; head and thorax smooth, metanotum keeled down middle, irregularly reticulated in centre, shagreened: basal four abdominal segments closely, finely, longitudinally striated, fifth weakly striated, apical smooth: basal three segments distinctly, fourth more weakly keeled down middle; a moderately wide, crenulated furrow at base of third and fourth segments. Pro- and mesopleurae smooth, the latter slightly, finely, closely striated at base above middle; metapleurae almost smooth in middle, top and bottom closely, mostly obliquely striated. Wings fuscous, base

yellowish-hyaline to near transverse basal nervure, stigma and nervures black, parastigma pale ochraceous; second cubital cellule of equal width, about four times longer than wide; first transverse cubital nervure angled backwards above middle, and thickened; there is a cloud on either side of it, and one between apex of stigma and radius; recurrent nervure received in the apex of first cubital cellule, clearly separated from first transverse cubital nervure. Length, 15 mm.

Maxillary palpi coloured almost like the body, bare and shining; labial paler, and covered with white pubescence.

Comes near to *P. carinatum* Cam., from Batjian (Tijd. v. Ent., liii., 50); that is a smaller species (11 mm.), with hyaline wings, and with only the basal two abdominal segments keeled, the parastigma black. The maxillary palpi are longer than the head; they are thickened, and shaped as in the two known species.

Agathinæ.

AGATHIS FULGIDIPENNIS, sp.n.

♀. Luteous; antennæ, apex of hind tibiæ (about one-fourth of total length), apices of basal four joints of hind tarsi broadly, and the apical entirely, black; wings dark fuscous, tinged with violaceous, very iridescent; stigma and nervures black, parastigma fuscous; trophi testaceous, palpi covered with long pale hair; face, body, and legs densely covered with white pubescence. Basal area of metanotum stoutly transversely striated, areola narrowed into a triangle at base, where it is smooth, and without keels; beyond this are four stout, clearly separated, transverse keels; outer area more widely and more irregularly transversely striated; keel outside the spiracles roundly curved, and converging towards apex; three stout keels at base, and a stout curved one at base of apical fourth. Pro- and mesopleuræ almost impunctate, metapleuræ closely, rather strongly punctured. Malar space a little longer than eyes. Centre of face below tinged with rufous. Length, 8 mm.

First abscissa of radius a little shorter than second; second cubital cellule not much narrower in front than behind; second transverse cubital nervure thickened on the outside in front. Antennæ densely covered with short, stiff, black pubescence.

EVANIIDÆ.

MEGISCHUS FROGGATTII, sp.n.

♀. Black; legs red; coxæ, trochanters, and the narrowed basal part of hind tibiæ black; femoral teeth about the same length, but the basal one much thicker at base than the apical, which is more slender, and of more uniform thickness: shortly beyond it are two short ones, basal a little longer and sharper than apical. A pale yellowish mark between the eyes and the base of the mandibles; basal joints of palpi reddish. Wings fuscous-violaceous, more deeply tinted in middle than at base or apex; stigma and nervures black. White ring near apex of sheaths of ovipositor as long as the black apical part. Length, 31; ovipositor, 33 mm. The two males in the collection are only 13-15 mm., in length.

Abdominal petiole as long as head and thorax united, and a little longer than the rest of abdomen; it is, as usual, closely, transversely, finely striated. Vertex from the hinder ocelli closely, strongly striated, the striæ more or less twisted; there is a smooth space below the ocelli, the sides of this bordered by longitudinal striæ; above the ocellus are five stout, widely separated striæ; the lower tubercle is broadly rounded at the apex, flat in the centre, with the sides raised; the other tubercles are oblique, sharply jointed. Pronotum smooth, the centre with a stoutly, transversely striated band; the smooth basal part has an oblique, stout tooth on either side of base. Base of mesonotum smooth, except for round, clearly separated punctures, the sides irregularly striated, the space between the striæ deep, distinct: the part bordering the scutellum bearing large, deep, scattered punctures;

scutellum at base bordered by a crenulated furrow, the scutellum itself being smooth. Metanotum with a crenulated furrow; the rest with the usual, round, clearly separated punctures. Propleuræ sparsely, widely punctured, the lower part aciculated; the lower, apical part of central depression and apex above with a few stout, deeply separated striæ. Mesopleuræ punctured, apical, upper half smooth; base strongly, closely punctured; the rest with the punctures smaller, and more clearly and regularly punctured. Third joint of antennæ a little shorter than fourth; the latter and fifth and sixth of almost equal length.

Comes near to *M. violaceipennis* Cam., from New Britain; it may be known, *inter alia*, by the black hind femora.

ICHNEUMONIDÆ.

Ichneumoninæ.

ERISTICUS SALOMONIS, sp.n.

♂. Black; head except occiput, and the greater part of upper third of outer orbits, pro- and mesosternum, lower third of mesopleuræ, metathorax, first abdominal segment, sides of second and third and their apices more narrowly, and legs, ferruginous-red; basal nineteen joints of antennæ red, turning into yellowish colour beyond middle: wings fuscous-violaceous, nervures and stigma black; areolet narrowed in front, nervures almost touching: recurrent nervure received distinctly beyond middle, discocubital and recurrent nervures with a distinct stump of a nervure. Areola about one-fourth longer than wide, basal nervure sharply angled inwardly, apex broadly rounded inwardly; post-petiolar area clearly separated, square, petiole smooth, post-petiole striated in the middle, sides in the middle distinctly punctured; second, third, and basal half of fourth segment closely punctured, striated in middle; gastracœli smooth, deep. Length, 15 mm.

Apart from the difference in colouration, the present species may be known from *E. froggattii* by the difference in the form of the areola: in *E. froggattii* it is almost twice longer than wide; in the species just described, horseshoe-shaped, about one-fourth longer than wide.

ERISTICUS FROGGATTII, sp.n.

♀. Black, shining: head, except conical spot over each antenna, stemmaticum, occiput, upper third of outer orbits, the black not touching the eyes, mandibular teeth, a small irregular spot near lower part of apex of mesopleuræ, a small narrow one at base of lower metapleural keel, a larger one surrounding metathoracic spiracles, abdominal petiole, except the post-petiole above, and apices of second and third abdominal segments narrowly, red; legs of a brighter red colour, the four front tibiæ and tarsi paler, more yellowish in tint. Basal six joint of antennæ rufous, seventh to eighteenth yellowish, the rest black. Palpi of a paler red colour than head; tips of mandibles black; wings fuscous, tinged with violaceous, nervures and stigma black, areolet 5-angled, the nervures almost touching in front; recurrent nervure received shortly beyond middle; transverse median shortly beyond transverse basal; disco-cubital and recurrent nervure with a distinct stump of a nervure. Head smooth; face, except in the slightly raised centre, closely, weakly punctured; clypeus more strongly and sparsely punctured, its sides rounded at apex. Mesonotum and scutellum almost smooth; base of metanotum smooth, the rest closely but not strongly punctured; areola open at the top, about twice longer than wide, slightly roundly narrowed from the transverse keels. Propleuræ smooth, lower part with curved striæ; upper two-thirds of mesopleuræ smooth, lower part and sternum closely punctured; apex with a crenulated border; metapleural spiracular area closely punctured, almost reticulated behind spiracles: the rest closely, strongly, obliquely striated. Post-petiole closely striated in centre, the rest distinctly punc-

tured; second, third, and basal half of fourth segment closely punctured, the following segments smooth, the last with basal half white. Gastracœli deep, smooth, striated in centre of basal part. Tarsi closely spinose below. Length, 17 mm.

The male is smaller, has the antennæ serrate, and the abdominal petiole entirely red; the post-petiole is almost entirely smooth; the red on the basal joints of the antennæ only extends to the fourth.

Cryptinæ.

MESOSTENUS INSULARIS, sp.n.

Black; legs bright red, a broad white band near centre of antennæ, palpi pale testaceous; apex of labrum bordered with testaceous; wings hyaline, stigma and nervures black; areolet small, twice longer along radius and cubitus than along transverse nervures, of equal width; recurrent nervure received near apex; transverse median nervure received shortly beyond transverse basal. Face closely, distinctly punctured, more strongly in middle than on sides; clypeus almost smooth. Front raised in middle, sides deeply depressed; a decurrent keel from the ocelli. Mesonotum finely, closely punctured; smooth on outer half of lateral lobes. Scutellum smooth and shining. Metanotum at base closely punctured, more or less reticulated; middle part closely, irregularly, longitudinally striated, apical slope more strongly transversely striated. Metapleuræ strongly, irregularly striated, more strongly above furrow than below it. Propleuræ finely punctured, finely, obliquely striated in middle. Mesopleuræ distinctly striated, except at apex above. Abdomen smooth and shining. Metanotal teeth minute, but distinct enough. Transverse median nervure in hind wings broken near the bottom. Thorax fully thrice as long as wide. Parapsidal furrows reaching to base of apical fourth. Post-petiole not abruptly thickened; spiracles slightly more removed from each other than from apex. Head wider than thorax.

Ophioninæ.

ENISCOSPILUS SALOMONIS, sp.n.

♀. Luteous; outer orbits pallid yellow, apical abdominal segments darker in colour, ocellar region pallid yellow, hinder ocelli almost touching eyes; the three are separated by almost the same distance from each other. Wings clear hyaline; costa, stigma and nervures black, basal abscissa testaceous; there are two horny points, one, near base of radius, roundly narrowed in front, rounded as at apex; the other near apex, transverse, conical, half the size of basal; transverse cubital nervure roundly curved, half the length of the space between it and the recurrent nervure, which is about one-fourth shorter than the latter. Metanotum densely covered with white pubescence; the part behind keel aciculated; the rest irregularly, mostly longitudinally striated, striæ stout and twisted, and much stronger in middle. Propleuræ almost smooth; mesopleuræ closely, finely, distinctly punctured, more weakly above middle than below; metapleuræ more strongly punctured; lower part of spiracular area irregularly, obliquely striated in middle below, striæ more or less twisted. Scutellum keeled to rear apex. Temples small, obliquely, roundly narrowed. Length, 18 mm.

Basal abscissa of radius clearly thickened, and shorter than second; clear space in the discoidal cellule commencing behind the basal horny point. Antennæ with the apical half infuscated.

I am not sure but that this species may be the same as *E. espeditus*, Kohl., from Samoa (Bat. u. Zool. Ergebnisse von den Samoa u. Salomonsinseln, 10, pl.iii., f.5.).

Pimplinæ.

ECHTHROMORPHA PALLIDILINEATA, sp.n.

♀. Rufous: face, clypeus, labrum, malar space, orbits, tubercles and narrow lines on apices of abdominal segments, narrowed in middle, pallid yellow; legs coloured like body, base of anterior pair paler, more yellowish in tint; antennæ

pallid red, deeper in colour at base; wings highly iridescent, brassy coloured at base, apex not very deeply clouded, stigma dark fuscous, nervures black; areolet not appendiculated, but the nervures united in front; recurrent nervure received in middle. Length, 13-14; terebra, 3-4 mm.

Head smooth, thorax closely punctured; propleuræ, upper half of mesopleuræ at base and, to a less extent, at apex above, and middle of metanotum broadly, smooth. Abdomen sparsely, weakly punctured; lower edge of sides of first segment with a broadly rounded furrow. Apical third of discocubital nervure roundly curved towards cubitus.

A distinct species, easily known by the uniformly rufous body, the absence of lines on the mesonotum, and the brassy-tinted wings. Its scutellum is more roundly convex, more raised over the mesonotum, than it is in *E. notulatoria*, F. Sec. Krieger, being more like that of *E. insidiator* and *E. rufa*, Cam.

ERYTHROPIMPLA PALLIDICEPS, sp.n.

♀. Black: head pallid yellow, as are also the mandibles, except at apex; palpi, thorax, the four front legs, except apex of middle coxæ, middle trochanters, and antennal scape, red; wings uniformly fuscous-violaceous, nervures black; areolet longish-triangular, moderately large, shortly appendiculated, receiving recurrent nervure in the apex, bullated at cubitus, recurrent nervure with two bullæ. Length, 17; terebra, 16 mm.

Sparsely covered with pale pubescence the metathorax densely so. Prothorax paler coloured than the rest of thorax, metathorax more deeply tinted than mesothorax. First abdominal segment with a keel on either side of middle, the keels stronger at base, not reaching to apex; basal two-thirds of the space between them smooth and shining, the apical closely, not very strongly punctured, and with a narrow keel down the middle; basal five segments closely, distinctly punctured, with the usual transverse furrows, more weakly punc-

tured; sixth segment as closely, but more finely punctured, without a transverse furrow; seventh shining, impunctate. There is a short, smooth furrow at the base of the metanotum in the centre; the rest of the metanotum closely, distinctly punctured. Basal three segments of abdomen united, longer than thorax. Ovipositor as long as abdomen; sheaths moderately broad, densely pilose.

Has the body- and leg-colouration of *E. ariana* Cam., from Assam; but that has the wings yellowish-hyaline, clouded at the apex. *E. flaviceps*, Cam., from New Guinea, is almost similar as regards colouration, but has the head more distinctly yellowish in tint, the metathorax fuscous, and the basal segment of the abdomen: and the central part of the segment is not clearly raised and separated, while its sides are not keeled.

Obs.—*Erythromorpha* Ashm., is very closely allied to *Trichiothecus* Cam., from Assam; it may be known from the latter by the clypeus being deeply, roundly incised; while, in *Trichiothecus*, it is only depressed at the apex and transverse; the sheaths of the ovipositor are broader, and more densely pilose, the hairs, too, being longer. The colouration of the two is very similar, black, with the fore legs, head, and thorax red, the wings uniformly fuscous. In *Trichiothecus* the disco-cubital nervure is broken by a minute stump of a nervure.

LISSOPIMPLA RUFIPES, sp.n.

♀. Black: antennal scape and sides of face bordering the central area, red; labrum at apical half of a more obscure red: an oblique line on either side of front, commencing near hinder ocelli and obliquely narrowed below where they touch the eyes: a small transverse mark on either side of base of middle lobe of mesonotum, a wider one of about the same length at its apex, tegulæ, and two almost united spots immediately over hind coxæ. Legs red: four anterior tarsi, and hind tibiæ and tarsi, black: tibiæ in middle broadly

tinged with red. Wings clear hyaline, stigma fuscous, nervures black, areolet oblique, nervures uniting in front; recurrent nervure received at apex of areolet, interstitial with second transverse cubital; transverse median behind transverse basal. Length, 9; terebra, 4 mm.

The outer margins of the central part of the face are roundly curved outwardly, the middle is finely keeled. The furrows of the mesonotum are united into one at the base of the apical third; they are smooth. Lower third of propleuræ finely, obliquely striated; apex of mesopleuræ crenulated. The middle of the metanotum is slightly raised, forming almost an area of equal width, shining, almost smooth; the rest is somewhat strongly and closely transversely striated, at the base the striæ being finer and more oblique. Metapleuræ irregularly shagreened. Abdomen smooth and shining; first segment nearly as long as the following two united. Mesosternum reddish. Tooth on hind femora small but distinct, oblique. Palpi pallid testaceous.

The affinities of this species are with *L. rufipes* Cam., from Ceylon, rather than with any known Australian species; it is more slenderly built, especially as regards the abdomen, which wants the coloured bands of *L. rufipes*; and the scutellum, metanotum, and pleuræ the white spots. In my figure of *L. rufipes* (*Spolia Zeylanica*, iii., p.140, Pl. B), the transverse median nervure in the hind wings is shown broken too low down; it is a characteristic of *Lissopimpla* that it is broken near the top.

• XANTHOCRYPTUS LUTEUS, sp.n.

♀. Ferruginous; head and antennæ tinged with yellow, the eight or nine apical joints of antennæ black, as is also the apex of mandibles; wings hyaline, tinged with fulvous, apex with a smoky border, costa and stigma testaceous, nervures black; base of metanotum in centre finely, irregularly longitudinally striated; the rest, from the keel, much more strongly, and more widely transversely striated; metapleuræ

closely, obliquely striated, striæ closer at base. Base of mesopleuræ striated, the striæ more or less curved, and running from top to bottom; the centre weakly punctured, apex from near the top striated, striæ at the base stronger, more oblique and wider apart than they are at apex. Mesonotum finely, not very closely, punctured; apex of middle lobe longitudinally striated. Length, 12; terebra, 5 mm.

A few points of generic importance may be drawn from this species, supplemental to those given in my description of the genus in the Proceedings of the Zoological Society (1901, 233). The mandibles apparently do not meet in front; their two teeth are short, equal in length, bluntly rounded, and separated behind by a furrow. Occiput roundly incised, margined. The smooth basal part of the metanotum is bounded by a roundly curved keel, which, at the sides, extends to the base of the metanotum, inclosing the spiracles, which are oval, and twice longer than wide. Antennæ slender, 27-jointed, the basal joints of flagellum elongated, the first a little longer than second. The fifth and sixth abdominal segments united are as long as the fourth; the sixth is the smallest, about one-half the length of fifth; the penultimate is as long as the second, and one-fourth longer than the last, which bears long cerci. Legs long and slender; claws simple, small; hind coxæ as long as first abdominal segment. The disco-cubital nervure is broadly, roundly curved.

Xanthocryptus belongs to the *Xorides* rather than to the *Cryptinæ*, but it is not quite typical in some respects. In Ashmead's arrangement of the *Xorides* (Bull. U.S. Nat. Mus., xxiii., 61) it runs near to *Perosis*, with which it cannot be confounded.